UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION OFFICE OF NUCLEAR REACTOR REGULATION

J. E. Dyer, Director

In the Matter of)	Docket Nos. 50-247
ENTERGY NUCLEAR OPERATIONS, INC.)	and 50-286 License Nos. DPR-26 and DPR-64
(Indian Point Nuclear Generating)	(10 CFR 2.206)

DIRECTOR'S DECISION UNDER 10 CFR 2.206

I. Introduction

By letter dated April 23, 2003, as supplemented on June 3 and October 16, 2003, the Honorable Richard Blumenthal, Attorney General for the State of Connecticut, filed a Petition pursuant to Title 10 of the *Code of Federal Regulations*, Section 2.206 (10 CFR 2.206). The Petitioner requested that the Nuclear Regulatory Commission (NRC) take the following actions: (1) order the licensee for the Indian Point Nuclear Generating Unit Nos. 2 and 3 (IP2 and 3) to conduct a full review of the facility's (a) vulnerabilities and security measures and (b) evacuation plans and, pending such review, suspend operations, revoke the operating license, or take other measures resulting in a temporary shutdown of IP2 and 3; (2) require the licensee to provide information documenting the existing security measures which protect the IP facility against terrorist attacks; (3) immediately modify the IP2 and 3 operating licenses to mandate a defense and security system sufficient to protect the entire facility from a land- or water-based terrorist attack; (4) order the revision of the licensee's Emergency Response Plan and the Radiological Emergency Response Plans for the State of New York and the counties near the plant to account for possible terrorist attacks, and (5) take prompt action to permanently retire

the facility if, after conducting a full review of the facility's vulnerabilities, security measures, and evacuation plans, the NRC cannot sufficiently ensure the security of the IP facility against terrorist threats or cannot ensure the safety of New York and Connecticut citizens in the event of an accident or terrorist attack.

The Petitioner's representative participated in a teleconference with the Petition Review Board (PRB) on June 19, 2003, to discuss the Petition. This teleconference gave the Petitioner and the licensee an opportunity to provide additional information and to clarify issues raised in the Petition as supplemented. The results of this discussion were considered in the PRB's determination regarding the request for immediate action and in establishing the schedule for reviewing the Petition.

In a letter dated July 3, 2003, the PRB notified the Petitioner that it had determined that his request would be treated pursuant to 10 CFR 2.206 of the Commission's regulations. The July 3, 2003, letter further stated: "In response to your requests for immediate actions contained in items 1, 2, 3, and 4 above, the NRC has, in effect, partially granted your requests." This document is available in the NRC's Agencywide Documents Access and Management System (ADAMS) (Accession No. ML031740470). The letter reflects actions that have been taken by the NRC since the September 11, 2001, terrorist attacks, including a series of Orders issued to nuclear facilities, including IP2 and 3.

The aforementioned correspondence and a transcript of the June 19, 2003, teleconference, are available in ADAMS for inspection at the Commission's Public Document Room (PDR) at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records are also accessible from the ADAMS Public Electronic Reading Room on the NRC Web site http://www.nrc.gov/reading-rm/adams.html. Persons who do not have access to ADAMS or have problems in accessing

the documents located in ADAMS should contact the NRC PDR reference staff by telephone at 1-800-397-4209 or 301-415-4737 or by e-mail to pdr@nrc.gov.

The NRC sent a copy of the proposed Director's Decision to the Petitioner and to the licensee for comment on May 17, 2004. The Petitioner responded with comments in a letter dated June 18, 2004. The licensee did not comment on the proposed Director's Decision. Copies of these documents are also publicly available under ADAMS Accession Nos. ML040490404, ML040490646, and ML041760274, respectively. The comments and the NRC staff's responses to them are attached to this Director's Decision.

II. Discussion

As discussed in Section I, the Petitioner requested that the NRC take certain actions regarding IP2 and 3. The specific requested actions are restated (with references to the Petitioner's supporting assertions) and discussed in the following paragraphs.

A. Requested Action 1a - Full Review of Vulnerabilities and Security Measures

1. Petitioner's Concern

The Petitioner requested that the NRC order the licensee to conduct a full review of the facility's vulnerabilities and security measures and to suspend operations, revoke the operating license, or take other measures resulting in a temporary shutdown of IP2 and 3. The Petitioner's request was based on the following assertions: IP and NRC personnel and resources confront "dual challenges" when ensuring security at an operational facility; the spent fuel storage facility is vulnerable to terrorist attack; the security forces at nuclear power plants have repeatedly failed to repel mock-terrorist attackers; and a terrorist attack on IP will have catastrophic effects.

2. Staff's Response

The Petitioner's request for a review of vulnerabilities and security measures was in effect granted in part by NRC actions following the events of September 11, 2001. Additionally, in response to a prior 2.206 Petition requesting that the NRC take actions at IP similar to those in this Petition, the NRC has concluded that IP has sufficient security measures in place to defend itself from a broad spectrum of potential terrorist attacks. See *Entergy Nuclear Operations, Inc.* (Indian Point, Units 1, 2, and 3), DD-02-06, 56 NRC 296, 300-304, 308-311 (2002) (ADAMS Accession No. ML022630099), *appeal dismissed, Riverkeeper, Inc., v. Collins*, 359 F.3d 156, 170 (2nd Cir. 2004) (ADAMS Accession No. ML0406805860).

Moreover, in a September 3, 2002, letter, the licensee notified the NRC that it had fully complied with the requirements of a February 25, 2002, Order imposing interim compensatory measures (ICMs) to enhance security after September 11, 2001. The NRC verified IP's compliance with the ICMs imposed by the Order with an onsite team inspection. The inspection was conducted over 2 weeks during January and February 2003, and concluded that the implementation of the ICM enhancements to security was complete. Additionally, between December 2002 and January 2003, several NRC security specialists reviewed a number of concerns that had been raised about implementation of IP's security program. No violations of requirements were identified during this inspection; however, the inspectors identified some areas for improvement. The licensee took prompt action to address these issues at the time of the inspection.

During the week of October 6, 2003, using a modified procedure from the NRC's Risk-Informed Baseline Inspection Program, the NRC again confirmed IP's conformance with the February 25, 2002, Order. This program supports the evaluation of licensee performance in areas not measured or not fully measured by performance indicators reported by the licensee.

On April 29, 2003, the NRC issued additional Orders to all commercial nuclear power plants, including IP, to require security enhancements to protect against a revised design basis threat (DBT). See 68 FR 24517 (May 7, 2003). On April 29, 2003, the NRC issued two other Orders intended to enhance the readiness and capabilities of security force personnel at nuclear power plants. One Order established requirements to limit work hours of security force personnel and provide reasonable assurance that the effects of fatigue will not adversely impact the readiness of security officers in performing their duties. See 68 FR 24510 (May 7, 2003). The other Order requires additional measures regarding security officer training and qualification, including exercising the protective strategies and capabilities required to defend nuclear power plants against sabotage by an attacking force. See 68 FR 24514 (May 7, 2003). This Order also requires frequent firearms training and qualification under a broad range of conditions representative of site-specific protective strategies. As required by the Order, on April 29, 2004, the licensee submitted its revised security plans (with an implementation schedule) to the NRC for review and approval.

In addition to the aforementioned NRC inspections and evaluations, the NRC evaluated the effectiveness of IP's security program in July 2003 as part of a pilot program of force-on-force exercises. IP's licensee successfully protected the plant from repeated mock adversary attacks during the exercise. Further details regarding the force-on-force exercise are provided in the response to requested action 3.

Based on the previous November 18, 2002, Director's Decision regarding security and vulnerabilities at IP and subsequent inspections, exercises and security-related NRC Orders, the NRC concludes that the Petition does not support a departure from the previous NRC decision that suspension of operations at IP2 and 3 is not necessary to provide adequate protection of public health and safety.

B. Requested Action 1b - Full Review of Evacuation and Emergency Response Planning

1. Petitioner's Concern

The Petitioner requested that the NRC order the licensee to conduct a full review of the facility's evacuation plans and to suspend operations, revoke the operating license, or take other measures resulting in a temporary shutdown of IP2 and 3. The Petitioner's request was based on the following assertions: the IP Radiological Emergency Preparedness Plan (REPP) fails to adequately inform the public in the event of a radiological emergency and relies on selective release of critical information and irrational and unenforceable secrecy; the IP REPP fails to address voluntary evacuation as required by NRC guidance documents; the IP REPP fails to address family separation in its analysis of evacuation times; the IP REPP fails to meet requirements for protection of foodstuffs and drinking water within the 50-mile ingestion exposure pathway emergency planning zone; the evacuation travel time estimates for the IP REPP fail to meet NUREG-0654/FEMA-REP-1; the IP REPP fails to address the administration of radioprotective drugs to the general population; and catastrophic effects will result from a terrorist attack on IP.

2. Staff's Response

The Petitioner's request for a review of evacuation and emergency response planning has in effect been granted in part by NRC actions following the events of September 11, 2001. The NRC has previously evaluated the appropriateness of emergency preparedness plans and evacuation planning at IP for use in response to a radiological emergency, including a release caused by a terrorist attack. See *Indian Point*, 56 NRC at 304-307. While NRC is responsible for evaluating the adequacy of onsite emergency plans developed by the licensee, the Federal Emergency Management Agency (FEMA) is responsible for assessing the adequacy of offsite (State and local) radiological emergency planning and preparedness activities. However, the

NRC makes the overall determination as to the state of emergency preparedness. FEMA informed the NRC and Governor Pataki of New York, on July 25, 2003, that, "after carefully considering all available information, we have reasonable assurance that appropriate protective measures to protect the health and safety of surrounding communities can be taken and are capable of being implemented in the event of a radiological incident at the Indian Point facility." See 68 Fed. Reg. 57702 (October 6, 2003). FEMA's finding recognized that the affected counties had received an updated "evacuation time estimate" (ETE) study (incorporating 2000 census data with voluntary or "shadow" evacuation estimates) and had specifically included the updated ETE study in their REPP. FEMA's reasonable assurance finding also reflected a review of plans for school children, including appropriate notification and protective action. In addition, FEMA considered the New York State report (referenced as the Witt Report in the Petition).

After reviewing the FEMA offsite findings in conjunction with the NRC's review of onsite emergency preparedness, the NRC concludes that the Petition does not support a departure from the NRC's previous conclusion that the overall state of emergency preparedness at IP2 and 3 provides reasonable assurance that adequate protective measures can and will be taken in the event of a radiological emergency.

As a separate matter, the Petitioner also petitioned FEMA on February 20, 2003, requesting withdrawal of FEMA's approval of the IP REPP. FEMA informed the NRC that it notified the Petitioner by letter on September 9, 2003, that FEMA would not act on his Petition as a result of FEMA's July 25, 2003, finding of "reasonable assurance." The Petitioner filed a subsequent request on November 5, 2003, for the withdrawal of FEMA's July 25, 2003, finding of "reasonable assurance." FEMA responded to this request in a letter dated June 1, 2004. FEMA's response stated: "We have formally considered your concerns, and, together with revisiting the information used to make our July 25, 2003, determination, have found no

compelling information that would warrant withdrawal of that determination." The response also stated that FEMA reaffirmed its finding of "reasonable assurance" for IP.

With regard to the administration of radioprotective drugs to the "general population," the State of New York and local response organizations developed plans for the distribution of potassium iodide (KI). The distribution is directed to the affected population located within the 10-mile plume exposure pathway emergency planning zone (EPZ) around Indian Point. The "affected population" is the part of the general population within the 10-mile EPZ for which the ingestion of KI has been determined in an emergency situation. On February 20, 2002, the State of New York requested and subsequently received 1.2 million KI tablets from the NRC to support the State's plans for populations within a 10-mile EPZ around the nuclear power plants located in the State of New York. In accordance with FEMA guidance issued December 2001 and updated October 4, 2002, "[t]he State must complete and submit revised plans and procedures, public information materials, and prescripted emergency instructions to the public within one year after the receipt of the KI. Because States are not required to have their emergency plans revised prior to receipt of KI tablets, the tablets should be stored in convenient locations for ad hoc distribution, should that become necessary. The capability to distribute KI tablets to the general public will be demonstrated by all Offsite Response Organizations (OROs) during the first exercise following the submission of the plans and procedures (but no sooner than 90 days from submission)." New York State has developed and issued KI guidance in accordance with the FEMA criteria.

Based on the previous November 18, 2002, Director's Decision regarding emergency preparedness plans and evacuation planning at IP and on FEMA's subsequent finding that reasonable assurance exists that appropriate protective measures can be implemented in the event of a radiological incident, the NRC concludes that the Petition does not support departure

from the previous NRC decision that suspension of operations at IP2 and 3 is not necessary to provide adequate protection of public health and safety.

C. Requested Action 2 - Documentation of Security Measures

1. Petitioner's Concerns

The Petitioner requested that the NRC require the licensee to provide information documenting the existing security measures, which provide the IP facility with protection against terrorist attacks. The Petitioner's request was based on the following assertions: the spent fuel storage facility is vulnerable to terrorist attack; the security forces at nuclear power plants have repeatedly failed to repel mock terrorist attackers; IP and NRC personnel and resources confront "dual challenges" when ensuring security at an operational facility; and catastrophic effects will result from a terrorist attack on IP.

2. Staff's Response

The Petitioner's request for documentation of security measures has in effect been granted in part by NRC actions following the events of September 11, 2001. In addition, the NRC has previously evaluated a request that it require the licensee to provide information documenting the existing security measures which protect IP against terrorist attacks. See *Indian Point*, 56 NRC at 300-304, 308-311. Based on the previous evaluation of this issue documented in the November 18, 2002, Director's Decision and the response to Requested Action 1a, the NRC concludes that the Petition does not support a departure from the previous NRC decision that information provided by the licensee in conjunction with other sources of security information demonstrates that the security posture at IP2 and 3 is appropriate under the current circumstances. Therefore, additional action on this request is not warranted.

D. Requested Action 3 - Security and Immediate Modification of Operating Licenses

1. Petitioner's Concerns

The Petitioner requested that the NRC immediately modify the IP2 and 3 operating licenses to mandate a defense and security system sufficient to protect the entire facility from a land- or water-based terrorist attack. The Petitioner also requested that the NRC implement several air-related security measures for IP, including a no-fly zone and a defense system to protect the no-fly zone. The Petitioner's request was based on the following assertions: the security forces at nuclear power plants have repeatedly failed to repel mock terrorist attacks; the spent fuel storage facility is vulnerable to terrorist attack; IP and NRC personnel and resources confront "dual challenges" when ensuring security at an operational facility; and catastrophic effects will result from a terrorist attack on IP.

2. Staff's Response

The Petitioner's request for revised security measures has in effect been granted in part by NRC actions following the events of September 11, 2001. In addition, the November 18, 2002, Director's Decision regarding security measures at IP, the response to requested action 1, and a recent Federal court decision discuss the licensee's defense and security systems. See *Indian Point*, 56 NRC at 300-304, 308-311; *Riverkeeper*, 359 F.3d at 170. Furthermore, the NRC has resumed force-on-force exercises at nuclear power plants as part of a pilot program. The force-on-force exercises are conducted to assess and improve the performance of defensive strategies at NRC licensed facilities. The NRC has already conducted pilot exercises at 15 nuclear power plant sites, including IP2 and 3. During the week of July 28, 2003, the NRC conducted a force-on-force exercise at the IP site using Multiple Integrated Laser Engagement System (MILES) equipment to enhance the realism of the exercise. MILES gear is a ground combat training system used by the Department of Defense

(DoD), the Department of Energy (DOE), and other agencies. The system employs modified weapons fitted with laser transmitters that add realism to exercises by simulating combat between protective and adversary forces. During the IP exercise, the security forces were able to thwart the mock adversary force in all the scenario attacks evaluated. These exercises continue to be a primary means to assess the performance of a licensee's security force and its ability to prevent radiological sabotage as required by NRC regulations and Orders.

The NRC oversight program for security is far broader than the baseline inspection program and force-on-force exercises. The oversight program also includes threat and vulnerability assessments and related evaluations of mitigative strategies; development, implementation, and inspection follow-up of advisories and orders; and a variety of other activities. NRC oversight has resulted in a multitude of security enhancements, including an increase in the number of security officers, an increase in the number of security posts, increased vehicle standoff distances, more stringent access authorization requirements at the facilities, limitations on security officer work hours, and more stringent security officer training and qualification requirements. This approach to security reflects the NRC's philosophy by ensuring that requirements for plant safety features and mitigation strategies, security measures, and emergency preparedness are addressed in an integrated manner.

In light of existing security requirements and enhancements established since

September 11, 2001, and the response to Requested Actions 1 and 2, the NRC concludes that
the Petition does not support a departure from the previous NRC decision that modification of
the IP2 and 3 operating licenses to mandate a more extensive defense and security system
than currently required is not necessary to provide adequate protection of public health and
safety. Therefore, additional action on this request is not warranted.

E. Requested Action 4 - Revise Emergency Response Plan and Radiological Emergency Response Plans to Address Terrorist Attack

1. Petitioner's Concerns

The Petitioner requested that the NRC order the revision of the licensee's Emergency Response Plan and the Radiological Emergency Response Plans of the State of New York and the counties near the plant to "account and prepare for possible terrorist attacks." The Petitioner's request was based on the following assertion: the IP REPP fails to adequately inform the public in the event of a radiological emergency and relies on selective release of critical information and irrational and unenforceable secrecy; the IP REPP fails to address voluntary evacuation as required by NRC guidance documents; the IP REPP fails to address family separation in its analysis of evacuation times; the IP REPP fails to meet requirements for protection of foodstuffs and drinking water within the 50-mile ingestion exposure pathway emergency planning zone; the evacuation travel time estimates for the IP REPP fail to meet NUREG-0654/FEMA-REP-1; the IP REPP fails to address the administration of radioprotective drugs to the general population; the IP REPP does not adequately address the possibility of a terrorist attack; IP and NRC personnel and resources confront "dual challenges" when ensuring security at an operational facility; and catastrophic effects will result from a terrorist attack on IP.

2. Staff's Response

The Petitioner's request for revisions to the licensee's emergency response plan has in effect been granted in part by NRC actions following the events of September 11, 2001. In addition, the November 18, 2002, Director's Decision regarding emergency preparedness and evacuation at IP, FEMA's reasonable assurance finding, and the response to requested action 1 reflect the pertinent information regarding emergency preparedness and evacuation planning for IP. See *Indian Point*, 56 NRC at 304-307; 68 FR 57702 (October 6, 2003). Based

on that prior Director's Decision, FEMA's reasonable assurance finding, and the response to requested action 1, the NRC concludes that the Petition does not support a departure from the previous NRC decision that the emergency preparedness plans and evacuation planning at IP2 and 3 are appropriate to use in response to a radiological emergency, including a release caused by a terrorist attack. Therefore, additional action on this request is not warranted.

F. Requested Action 5 - Retire Facility If Security and Safety Not Ensured

1. Petitioner's Concerns

The Petitioner requested that the NRC take prompt action to permanently retire the facility if, after conducting a full review of the facility's vulnerabilities, security measures, and evacuation plans, the NRC cannot sufficiently ensure the security of the IP facility against terrorist threats or cannot ensure the safety of New York and Connecticut citizens in the event of an accident or terrorist attack.

2. Staff's Response

As discussed in the November 18, 2002, Director's Decision and the responses to requested actions 1, 2, 3, and 4, thorough reviews of security measures and emergency response at IP2 and 3 have been conducted and enhancements implemented. See *Indian Point*, 56 NRC at 300-304, 308-311. In view of previous NRC and FEMA decisions on emergency preparedness, enhancements to site security, and emergency response planning, the NRC concludes that operation of the IP nuclear power plant does not pose an undue risk to public health and safety and that closing the IP nuclear power plant is not warranted.

III. Conclusion

As stated in a letter to the Petitioner on July 3, 2003, the NRC's actions have in effect partially granted the Petitioner's request for an immediate review of vulnerabilities, security measures, and evacuation and emergency response planning at IP2 and 3. In addition, on November 18, 2002, the NRC issued a Director's Decision, which addresses many of the security measures and emergency planning issues raised in this Petition. See *Indian Point*, 56 NRC at 300-311. No further action is deemed necessary to address the Petitioner's request regarding these issues. Subsequent to the November 18, 2002, Director's Decision, the NRC in its April 29, 2003, Orders required IP and other plants to implement additional security measures. During the week of July 28, 2003, the NRC conducted a force-on-force exercise at the IP site to assess and improve the performance of defensive strategies at the facility.

Moreover, on July 25, 2003, FEMA determined that reasonable assurance existed that appropriate protective measures to protect the health and safety of communities around IP2 and 3 can be implemented in the event of a radiological incident at the IP facility. See 68 FR 57702 (October 6, 2003). FEMA reaffirmed this position in a letter to the Petitioner's requests.

As provided in 10 CFR 2.206(c), a copy of this Director's Decision will be filed with the Secretary of the Commission for the Commission to review. As provided for by this regulation, the decision will constitute the final action of the Commission 25 days after the date of the decision unless the Commission, on its own motion, institutes a review of the decision within that time.

Dated at Rockville, Maryland, this 17th day of August 2004.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

J. E. Dyer, Director Office of Nuclear Reactor Regulation

Attachment: Staff Responses to Comments on

Proposed Director's Decision DD-04-03

STAFF'S RESPONSES TO COMMENTS ON PROPOSED DIRECTOR'S DECISION DD-04-03

This attachment documents the Nuclear Regulatory Commission (NRC) staff response to comments received on proposed Director's Decision DD-04-03. These comments were solicited by a letter dated May 17, 2004. The Petitioner replied by letter dated June 18, 2004.

Specific Petitioner Comments:

Comment 1: NRC's proposed decision has not specifically addressed the patent inability of the regional road system to handle the probable number of evacuees.

As the basis for this comment, the Petitioner states: "It cannot be maintained that the transportation system as it now stands can move large numbers of panic-stricken civilians fleeing a terror attack and a cloud of radiation." The Petitioner also states that the Radiological Emergency Preparedness Plan (REPP) cannot be taken seriously without a realistic approach to sheltering-in-place or alternative transportation planning. The Petitioner also questions whether the REPP addresses the consequences of multiple simultaneous terror attacks on the transportation infrastructure.

Staff's Response:

The Federal Emergency Management Agency (FEMA) is responsible for assessing the adequacy of offsite (State and local) radiological emergency planning and preparedness activities. On July 25, 2003, FEMA concluded there is reasonable assurance that appropriate protective measures to protect the health and safety of surrounding communities can be implemented in the event of a radiological incident at the Indian Point facility. In a letter dated June 1, 2004, FEMA reaffirmed its reasonable assurance finding in response to an appeal filed by the Connecticut Attorney General. In the letter, FEMA addressed several issues, including the Attorney General's specific comments on the proposed Director's Decision. The proposed Director's Decision will be updated to reflect the conclusion of FEMA's June 1, 2004, letter.

Comment 2: NRC's proposed decision does not contain sufficient information to permit a determination as to whether new security enhancement initiatives provide a reasonable degree of security from potential terrorist attacks.

The Petitioner states that it is clear that NRC has undertaken several important new security initiatives. However, the Petitioner still maintains that the proposed decision does not provide sufficient information to permit a determination as to whether a reasonable degree of security is provided, particularly with respect to the ability to defend against deliberate attacks.

Staff's Response:

Details of specific security requirements are considered safeguards information and cannot be made public. Nevertheless, the NRC's goal is to provide an appropriate level of detail to the public regarding security information.

The proposed Director's Decision incorporates, by reference, the November 18, 2002, Director's Decision that describes in some detail the protection offered by robust plant design features, sophisticated surveillance equipment, physical security protective features, professional security forces, access authorization requirements, and NRC regulatory oversight. The details of a February 25, 2002, Order to all operating power reactor facilities requiring certain interim compensatory measures are considered safeguards information and cannot be made public. However, some specific measures are cited in the November 18, 2002, Director's Decision (including increased patrols, augmented security forces and capabilities, additional security posts, installation of physical barriers, vehicle checks at greater standoff distances, enhanced coordination with law enforcement and military authorities and more restrictive site access controls for all personnel). The proposed Director's Decision notes that the licensee has fully complied with the Order imposing the interim compensatory measures.

The proposed Director's Decision also describes an Order requiring security enhancements to protect against a revised design-basis threat. The details of the design-basis threat are safeguards information and cannot be publicly released. The proposed Director's Decision discusses two additional Orders regarding fatigue and security officer training and qualification. The proposed Director's Decision also reports on a recent force-on-force exercise at Indian Point where the security forces were able to thwart the mock adversary force in all the scenario attacks evaluated. Accordingly, no changes to the proposed Director's Decision are necessary as a result of this comment.